

CLAIMS

1. A screw feeder (10) adapted to be mounted to a screwdriver (12) and to hold screws (32,36) in position relative to a screwdriver bit (16) of the screwdriver (12) to assist insertion of the screws into a workpiece, the screw feeder comprising:-
a magazine (34) for containing a plurality of screws therewithin, the magazine
5 including a first biasing means (74) to act upon screws therewithin;
a holding portion (30) in communication with the magazine (34), the holding portion (30) for releasably retaining screws (32,36) passed thereto from the magazine (34) and for releasing the screws releaseably retained therewithin under action of insertion of a screwdriver bit (16) into the holding portion in order to drive a
10 screw held within the holding portion (30) into a workpiece;
wherein the holding portion (30) comprises at least one jaw (38) pivotable about a longitudinal axis (39), the at least one jaw arranged to releasably restrain a screw passed to the holding portion by the magazine under action of the first biasing means (74), the holding portion including a channel (50) within which channel a
15 restrained screw is held until advanced out of the holding portion under action of the screwdriver bit (16) inserted into the holding portion via the channel (50) and into driving engagement with the screw so restrained;
and wherein the magazine (34) includes a central slot (70) along which central slot the screws pass under the action of the first biasing means (74), the central slot
20 being aligned with the longitudinal axis of the pivotable at least one jaw (38) so that, on passing from the magazine to the holding portion, the screws maintain the same alignment relative to both the central slot (50) and the longitudinal axis (39);
and wherein screws from the magazine are fed in succession to the holding portion under action of the first biasing means and releasably restrained within the
25 holding portion following retraction of said screwdriver bit (16) from said holding portion (30).
2. A screw feeder according to claim 1, wherein the first biasing means (74) urges screws (32,36) to be passed from the magazine (34) to the holding portion (30,38') in
30 a direction orthogonal to the longitudinal axis (39).

3. A screw feeder according to any one of the preceding claims, wherein said holding portion (30) comprises a plurality of jaws (38,38') and defines at least one cam surface such that axial movement of a head of a screw (32,36) against the or each cam surface causes the jaws of the plurality of jaws (38,38') to be urged apart. .
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4. A screw feeder according to any one of the preceding claims, further comprising guide means (56) adjacent said holding portion (30).
5. A screw feeder according to any one of the preceding claims wherein the
- 10 central slot (70) comprises a respective screw head receiving portion.
6. A screw feeder according to any one of the preceding claims, wherein the holding portion (30) includes a second biasing means (52) for urging the at least one jaw member towards a position adapted to restrain a screw passed to the holding
- 15 portion (30) from the magazine (34).
7. A screw feeder according to any one of the preceding claims, further comprising a mounting portion (18) for mounting said screw feeder to a screwdriver.
- 20 8. A screw feeder according to claim 7, further comprising adjustment means (24) for enabling adjustment of the separation of the mounting portion from the holding portion and the magazine.
9. A screw feeder according to claim 8, wherein the adjustment means comprises
- 25 at least one telescopic arm (24).
10. A screw feeder according to claim 9, wherein the adjustment means further comprises third biasing means (25) for urging the mounting portion away from the holding portion and the magazine.
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11. A screw feeder according to any one of claims 7 to 10, wherein the orientation of the holding portion and/or the magazine is adjustable relative to the mounting portion.

12. A screw feeder according to any one of the preceding claims wherein the magazine permits a slotted stacking of the screws for passing to the holding portion.

13. A screw feeder according to any one of the preceding claims wherein insertion
5 of a screwdriver bit into the holding portion in order to advance a screw held therewithin causes movement of the at least one jaw member against the second biasing means, thereby to permit commencement of passing of a subsequent screw into the holding portion from the magazine.

10 14. A screw feeder according to any one of the preceding claims wherein screws within the magazine are not according to any one of the preceding claims wherein coupled to one another.

15 15. A screw feeder according to any one of the preceding claims wherein the slot (70) of the magazine (34) includes a screw head receiving portion (72) to permit insertion of screws (32,36) into the slot only in one orientation.

16. A screw feeder as substantially described herein and with reference to the accompanying claims.

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17. A power tool comprising:-
a body;
a screwdriver bit mounted to said body; and
a screw feeder according to any one of the preceding claims.

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